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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,933	02/09/2004	Guen-Hee Cho	8021-202 (SS-19131-US)	5093
22150	7590	08/24/2005	EXAMINER	
F. CHAU & ASSOCIATES, LLC 130 WOODBURY ROAD WOODBURY, NY 11797			COX, CASSANDRA F	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/774,933

Applicant(s)

CHO ET AL.

Examiner

Cassandra Cox

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 26-29 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 and 14 is/are allowed.
- 6) ☒ Claim(s) 12, 13, 15 and 22-24 is/are rejected.
- 7) ☒ Claim(s) 16-21 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicant's arguments in the response filed on 06/02/05 have been considered, but are not persuasive. The restriction is proper because the inventions in Group I and Group II are related as combination subcombination. While group I may disclose an internal clock generator, it does not require the particular elements of the internal clock generator as claimed in Group II. Therefore, the search required for Group I would not be the same as the search required for Group II. The restriction has been maintained and the claims of elected Group I have been searched. The claims of Group II have been withdrawn from further consideration.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 12-13 and 23-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 12 and 23 are indefinite because the claims are misdescriptive. The claims recite " a phase controller, which outputs an output signal of the level selector as the internal clock signal in response to first and second phase control signals;" This is misdescriptive. The phase controller is outputting a delayed version of the output signal of the level selector wherein the delay is controlled in response to the first and second phase control signals. Correction or clarification is required.

Claims 13 and 24 are also rejected due to the limitations of the base claim and any intervening claims.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 15 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoneda (U.S. Patent No. 6,404,248).

In reference to claim 15, Yoneda discloses in Figure 9 a delay-locked loop comprising: a level selector (52), which receives an external clock signal (RCLK), and directly outputs the external clock signal (RCLK) or changes a level of the external clock signal (RCLK) and outputs a changed external clock signal (RCLK inverted); and an internal clock signal generator (51, 53, 54), which receives an output signal (SCLK) of the level selector (52) and the external clock signal (RCLK), and generates an internal clock signal (OCLK) synchronized to a phase of the output signal (SCLK) of the level selector (52).

In reference to claim 22, the external clock signal (RCLK) has a Transistor-Transistor logic level.

***Allowable Subject Matter***

5. Claims 1-11, and 14 are allowed.

6. Claims 16-21 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 12-13 and 23-24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: Claims 16-17 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 6 wherein the level selector (610) comprises a second metal line (MTL2), which applies the external clock signal to the clock buffer unit (630), wherein one of the first and second metal lines is connected and one of the first and second metal lines is disconnected in combination with the rest of the limitations of the base claims and any intervening claims. Claims 18-21 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 7 wherein the level selector (710) comprises a first (BP1), second (BP2), third (BP3), fourth (BP4) and a bonding wire (WB) having the recited connections in combination with the rest of the limitations of the base claims and any intervening claims. Claims 23-24 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 2 wherein the feedback unit (250) generates an up/down signal (UDS) and a mode signal (MODES) and the phase control signal generator (260) generates first and second control signals (PHS1, PHS2) for controlling a phase of an output signal of the level selector (110) in combination with the rest of the limitations of the base claims and

any intervening claims. Claim 25 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 2 wherein the level selector (110) receives the external signal (EXCLK) through a repeater (270, 280) in combination with the rest of the limitations of the base claims and any intervening claims.

9. The following is an examiner's statement of reasons for allowance: Claims 1-11 and 14 are allowed because the closest prior art of record fails to disclose a circuit as shown in Figure 1 wherein the delay locked-loop comprises a control signal generator (120) which generates the control signal for the level selector (110) that is separate from the internal clock signal generator (130) in combination with the rest of the limitations of the base claims and any intervening claims. The closest prior art of record discloses the level selector receiving a control signal from the internal clock signal generator.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cassandra Cox whose telephone number is 571-272-1741. The examiner can normally be reached on Monday-Thursday from 7:00 AM to 4:30 PM and on alternate Fridays from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CC  
QE

August 20, 2005



TIMOTHY P. CALLAHAN  
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